

MAR/FY06

**DELAWARE
ARMY NATIONAL GUARD**

Army Defense Military Munitions
Response Program
Installation Action Plan

Final 17 May 2006

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Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multi-year Installation Cleanup Program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern, and proposes a comprehensive, installation-wide approach, with associated costs and schedules, to conduct investigations and necessary remedial actions.

In an effort to coordinate planning information between the U.S. Army Environmental Center (USAEC), Delaware Army National Guard, National Guard Bureau, and executing agencies, an IAP has been completed for Delaware Army National Guard. The IAP is used to track requirements, schedules and tentative budgets for all major Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

The following agencies contributed to the formulation and completion of this Installation Action Plan:

Army Environmental Center
Delaware Army National Guard
Engineering and Environment, Inc./USAEC

Acronyms & Abbreviations

AEDB-R	Army Environmental Database - Restoration
ARNG	Army National Guard
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CSMS	Combined Support Maintenance Shop
CTC	Cost-to-Complete
DD	Decision Document
DERA	Defense Environmental Restoration Account (currently called ER,A)
DERP	Defense Environmental Restoration Program
DNREC	Department of Natural Resources and Environmental Control
DOD	Department of Defense
ER,A	Environmental Restoration, Army (formerly called DERA)
ERDC	Engineer Research and Development Center
ESD	Explanation of Significant Differences
EST	Engagements Skills Trainer
FFA	Federal Facility Agreement
FMS	Field Maintenance Shop
FS	Feasibility Study
FY	Fiscal Year
HRR	Historical Records Review
IAP	Installation Action Plan
IRA	Interim Remedial Action
IRP	Installation Restoration Program
LTM	Long-term Management
MACOM	Major Army Command
MC	Munitions Constituents
MEC	Munitions and Explosives of Concern
MMRP	Military Munitions Response Program
OHW	Ordinary High Water Mark
PA	Preliminary Assessment
PY	Prior Year
RA	Remedial Action
RA(C)	Remedial Action - Construction
RA(O)	Remedial Action - Operation
RAB	Restoration Advisory Board
RAP	Remedial Action Plan
RC	Response Complete
RD	Remedial Design
REM	Removal
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy in Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation

Acronyms & Abbreviations

SDZ	Surface Danger Zone
SI	Site Inspection
SWAT	Special Weapons Attack Team
TRC	Technical Review Committee
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAEC	United States Army Environmental Center
USATHMA	United States Army Toxic and Hazardous Material Agency (currently called USAEC)
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USP&FO	United States Property and Fiscal Office
UST	Underground Storage Tank
UXO	Unexploded Ordnance

Installation Locale: The 190-acre New Castle installation, also known as the River Road Training Site, has approximately 72.48 acres of regulated water bodies, including wetlands (approximately 38% of the facility's area), as determined by the U.S. Army Engineer Research and Development Center, Water Experiment Station under the terms of an Interservices Support Agreement for Planning Level Wetland Delineation at wetlands. All are delineated either to the limits of the ordinary high water mark (OHW) or with wetland protocols identified in the "Corps of Engineers Wetlands Delineation Manual" (Environmental Laboratory 1987). All are regulated as waters of the United States under Section 404 of the Clean Water Act. The land component of the MMRP site is located within these wetlands.

The first permanent feature of the installation was a rifle range. During World War I, a semi-permanent encampment was built south of the present multi-use administrative building and caretaker's house. In addition to the rifle range, one document indicates that artillery may have been fired in the area at an artillery shed which is one of the oldest buildings on the facility.

Currently the New Castle range is used by the Delaware Army National Guard, New Castle County police officers, SWAT Teams, and related military and police organizations. Today, four small arms ranges are located on New Castle, including a police range, pistol club range, military pistol range, a known distance range. The current date back to approximately 1940 and are primarily oriented to allow firing from west to east. The site includes the United States Property and Fiscal Office (USP&FO), Combined Support Maintenance Shop (CSMS #9), Field Maintenance Shop (FMS #3), Facilities Maintenance Office, Engagements Skills Trainer (EST), Range Control Building (former caretaker's house) and the 249th Engineer Detachment Readiness Center.

Installation Mission: The mission of River Road Training Site is to provide training, administrative, maintenance, and logistical support to the Delaware Army National Guard components of the United States First Army Area.

Lead Organization: National Guard Bureau

Regulatory Participation:

Federal: U.S. Environmental Protection Agency

State: Department of Natural Resources and Environmental Control (DNREC), who has primacy over environmental issues

Leading Executing Agencies: U.S. Army Corps of Engineers

National Priorities List (NPL) Status: Not on NPL List

Installation Restoration Advisory Board (RAB)/Technical Review Committee

(TRC)/Technical Assistance for Public Participation (TAPP) Status: No RAB has been established to date.

Installation Program Summaries ***MMRP***

Contaminants of Concern: UXO, Lead

Media of Concern: Soil

Estimated date for RIP/RC: 2017

Funding to Date: (FY00-FY05): \$ 25K

CTC: \$4,521K

Cleanup Program Summary

Installation Historic Activity: Duffield Associates (a local environmental consulting firm) conducted an analysis for the Delaware Army National Guard on the sites and determined that the rounds were best left in-situ. An extended ongoing public debate (not involving the Delaware Army National Guard) continues over potential contamination release from dredging of the Delaware River. The origins of this debate reside in an Army Corps of Engineers project to deepen the shipping channel from the mouth of the Delaware to Philadelphia. Numerous environmental organizations have resisted this project, suggesting that such an activity would release contamination currently stabilized in the channel resulting in a fish kill. The Delaware River has a long history of exposure to industrial processes with several point and non-point sources. The Delaware River has shown evidence of recovery but still remains a fragile ecosystem. The Chesapeake Bay field office of the US Department of Fish and Wildlife addressed the Delaware Army National Guard concerning the impact of lead on the surrounding ecosystem. The concerns were raised during the development of the New Castle Rifle Range (a.k.a. the River Road Training Site) Integrated Natural Resource Management Plan (INRMP).

Current Activity: The Delaware Army National Guard is in the process of updating the INRMP. The Technical Guidance for Environmental Management at Operating Outdoor Small Arms Firing Ranges (February 2005) is expected to be either directly incorporated into the INRMP or a site specific plan developed from the process.

Program Progress: The INRMP is currently in development. Based on the issues related to the dredging of the Delaware River, a clean up program for the water areas of the river is not projected. The ubiquitous contamination of the Delaware River south of Philadelphia would require funding beyond the scope of the MMRP program and the efforts of multiple Federal, State and commercial entities to be successful. Should such a large scale project develop, the Delaware Army National Guard will likely provide input as an interested party.

IRP

There are no IRP Sites.

MMRP

There are two active MMRP sites at the DE Army National Guard.

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Military Munitions Response Program

MMRP Summary

Total AEDB-R MMRP Sites / AEDB-R sites with Response Complete: 2/0

AEDB-R Site Types

2 Multi-Use Ranges

Most Widespread Contaminants of Concern: UXO, Lead

Media of Concern: Soil

Completed REM/IRA/RA: None

Total MMRP Funding

Prior years (up to FY05):	\$ 25K
Current Year (FY06):	\$ 0
Future Requirements (FY07+):	\$ 4,521K
Total:	\$ 4,546K

Duration of MMRP

Year of MMRP Inception: 2002

Year of MMRP RIP/RC: 2017

Year of MMRP Completion Including LTM: 2047

MMRP Contamination Assessment

MMRP Contamination Assessment Overview

Multi-Use Ranges

The Phase 3 Army Range Inventory was completed for the Delaware Army National Guard in December 2003. The inventory identified 2 sites as eligible for the MMRP, the Former Small Arms Range Water Area and the Former Small Arms Range Land Area which are considered multi-use ranges. The Phase 3 Inventory serves as the Preliminary Assessment under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). A site inspection (SI) is scheduled for FY06.

MMRP Cleanup Exit Strategy

Upon completion of the SI, the remedial investigation will include additional sampling to further characterize the extent of the contamination. It is anticipated that a soil treatment and removal action will be conducted at NCDE-001-R-01 with possible long-term groundwater monitoring. The anticipated remedy for NCDE-002-R-01 would consist of dredging as determined by DNREC.

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Military Munitions Response Program Site Descriptions

Former Small Arms Range Land Area (Page 1 of 2)

SITE DESCRIPTION

The Former Small Arms Range Land Area is the 25-acre land area that once was part of former small arms ranges at New Castle. The area is a combination of the non-operational portion of a former 1,000-yard rifle range that was reportedly active from 1910 to 1940 and another former rifle range south of the current active rifle range that overlaps portions of the former 1,000-yard range. The area also includes old target pits along the access road extending from the current pistol ranges to the Delaware River. The current small arms ranges have been located in the same relative position since about 1940. However, before 1970, the ranges did not have berms or backstops so small arms firing from 1940 to 1970 also contributed to the small arms ammunition in the Former Small Arms Range Land Area and in the Delaware River as well. The Former Small

Arms Range Land Area extends to the water line of the Delaware River and includes the beach. Since the Army owns and maintains the Former Small Arms Range Land Area, it is considered a closed range by the Army's inventory definitions.

Munitions used include small arms ammunition from both rifle and pistol training. In March 1995, the National Guard issued a final report on the assessment of spent bullets from the area included in the inventory. The report summarized the field data collection effort in which 35 sample sites were analyzed for small arms and soil / sediment contaminants (e.g., metals). Expended small arm bullets were recovered in 11 of the sample locations. The report concluded that the potential impact of past practices is limited to the waterfowl using the beach. During the sampling program, a "spent M42 mortar round was found" in the tidal wetlands and turned over to the Delaware Army National Guard for disposal. No additional information was found regarding the item; however, when the data collection team reviewed current and past ordnance manuals they did not find reference to any such mortar. The item may have been an M29A2, 3.5 inch anti-tank projectile and mislabeled as a mortar in the report. A field survey recovered three (3) of the described items. The items were identified as Korean War era bazooka rounds for M20 3.5 rocket launcher. The rounds are M29A2 series with a dummy M405 Fuze. The team found documentation and evidence of small arms use and because one large caliber item was found during a sampling program, both small arms and large caliber munitions were reported in the inventory.

M20 Rocket Launcher rounds do not have a UXO constituent since they were only leader rounds; therefore, only soil treatment for lead may be required. The closed portion of the land component is contained within the SDZ of an active range. Current activities on the

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Serious

CONTAMINANTS: UXO, Lead

MEDIA OF CONCERN: Soil

PHASES	Start	End
PA.....	200211	200305
SI.....	200510	200609
RI/FS	201110	201209
RD	201510	201609
RA(C)	201610	201709
LTM	201710	204709

RC: 201709

Former Small Arms Range Land Area (Page 2 of 2)

abutting active ranges need to be considered when creating cleanup strategy and remediation.

CLEANUP STRATEGY

The SI will be completed in FY06. Upon completion of the SI, a remedial investigation will be conducted to further characterize the extent of the contamination. The anticipated remedy may include soil removal and treatment. Long-term management consisting of land use control and groundwater monitoring may also be required.

NCDE-002-R-01

Former Small Arms Range Water Area

SITE DESCRIPTION

The Former Small Arms Range Water Area is the 350-acre area of the Delaware River that once was once part of the impact area for the former small arms ranges at New Castle. A former 1,000-yard rifle range that was reportedly active from 1910 to 1940 and another former rifle range south of the current operational rifle range that overlaps portions of the former 1,000-yard range fired into the water when they were active. Small arms also landed in the water prior to 1970 when there were no berms or backstops to catch small arms ammunition. The National Guard report on the assessment of spent bullets in the area also concluded that small arms ammunition landed in the Delaware River during past practices but was outside of the scope of the 1995 environmental evaluation. Since Delaware owns and maintains the Delaware River, the area is considered a transferred range by the Army's inventory definitions.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Negligible

CONTAMINANTS: UXO, Lead

MEDIA OF CONCERN: Soil

PHASES	Start	End
PA.....	200211	200305
SI	200510	200609

RC: 200609

Currently, USACE projects extensive dredging of the Delaware River shipping canal; however, this is being contested by DNREC. The Delaware River has environmental issues of concern to Federal and state agencies and the public. Delaware Army National Guard environmental representatives suspect it would be safer to leave munitions in-situ. Dredging would be required to remediate the water component of this range. Numerous studies show dredging may have a large, negative environmental impact on an already complicated ecosystem. Munitions removal would increase this possible negative impact. USFWS has indicated to the Delaware ARNG that they do not agree with the assessment showing no munitions removal.

CLEANUP STRATEGY

The SI will be completed in FY06. No Further Action is anticipated.

Initiation of MMRP: 2002

Projected ROD/DD Approval Dates: 2017

Projected Construction Completion: 2017

Schedule for Five Year Reviews: Unknown

Estimated Completion Date of MMRP including LTM: 2047

MMRP Costs

Prior Years Funds

<u>Year</u>	<u>Site Information</u>	<u>Expenditures</u>	<u>FY Total</u>
FY02			\$ 25,K

Total Funding up to FY05: \$25,000

Current Year Funds

<u>Year</u>	<u>Site Information</u>	<u>Expenditures</u>	<u>FY Total</u>
FY06			

Total Funding FY06: \$ 0

Total Future Requirements: \$4,521K (the installation has not identified any costs on the CTC for the RD/RA for site NCDE-002-R-01)

Total Program Cost (from inception for completion of the IRP): \$4,521K

Community Involvement

To date, no RAB has been established for DEARNG.